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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,776	08/08/2005	Christoph Jaroschek	948-002.002	6612

4955 7590 06/13/2006

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EXAMINER	
MACKEY, JAMES P	
ART UNIT	PAPER NUMBER
1722	

DATE MAILED: 06/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/511,776	JAROSCHEK, CHRISTOPH	
	Examiner	Art Unit	
	James Mackey	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 October 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/18/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the lock "adjusted by means of a toothed rack" (claim 4; page 8, lines 7-9), the lock "adjusted by inclining a bolt" (claim 5; page 7, line 30), and the lock "composed of electromagnets" (claim 6; page 7, line 31) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The abstract of the disclosure is objected to because of the inclusion of the legal phraseology "said". Correction is required. See MPEP § 608.01(b).

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed

150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 11, "a channel" is indefinite as to how this relates to the "at least one channel" as previously recited on line 8 of the claim; line 11, "the inlet area" lacks proper antecedent basis in the claim; line 13, "it" is indefinite as to exactly which structural element is being referred to; and line 15, "the front part" lacks proper antecedent basis in the claim. Dependent claims 2-10 are indefinite due to their dependence on indefinite claim 1.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 1, 2, 4 and 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sorensen (U.S. Patent 4,971,747; Figure 1) in view of any one of Sorensen (U.S. Patent 4,539,171), Sorensen (U.S. Patent 4,400,341) and Sorensen (U.S. Patent 4,990,299), and further in view of Bielfeldt et al. (U.S. Patent 3,843,294).

Sorensen '747 teaches an injection molding machine substantially as claimed, comprising a molding tool having at least three tool parts separable along parallel separation planes with mold cavities located at the separation planes, with an injection main channel (which may be centrally located; see col. 13, lines 16-19) extending from an inlet area 39 at an outer surface of the tool and extending to a first separation plane and continues to a second separation plane and further including "partial channels" extending from the main channel to the cavities, and locks 31, 32 which can lock and unlock the tool parts along respective separation planes. Sorensen '747 does not disclose that the locks may be adjusted between a first position wherein only a central tool part and a front tool part are locked together and a second position wherein only the central tool part and a rear tool part are locked together.

Each of Sorensen '171, Sorensen '341 and Sorensen '299 discloses an injection molding machine comprising a molding tool having at least three tool parts separable along parallel separation planes with mold cavities located at the separation planes, and locks which may be adjusted between a first position wherein only a central tool part and a front tool part are locked together and a second position wherein only the central tool part and a rear tool part are locked

together. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sorensen '747 by providing the locks as being adjusted between first and second positions, as disclosed in any one of Sorensen '171, Sorensen '341 and Sorensen '299, in order to permit selective and alternative opening of the mold cavities in respective separation planes.

To the extent that Sorensen '747 does not teach that the injection main channel extends from the inlet area at a surface of the tool "to a first separation plane and continues to the second separation plane where partial channels extend from it to the cavities" as claimed in claim 1, such is taught by Bielfeldt et al., and further wherein the "partial channels" 7a, 7b, 8a, 8b are located in the separation planes. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sorensen '747 by utilizing a centrally located injection channel extending from an inlet area at a surface of the tool to a first separation plane and continuing to the second separation plane where partial channels extend in the separation plane to the mold cavities located in the separation plane, as disclosed in Bielfeldt et al., in order to facilitate supply of molten resin equally to all of the mold cavities.

With regard to the specific lock utilized to selectively lock the tool parts together, Sorensen '171 discloses the use of electromagnet lock means (col. 7, lines 16, 40), and Sorensen '299 discloses the use of a sliding bolt 28; therefore, it would have been obvious to a skilled artisan to modify Sorensen '747 by utilizing such conventional locks in order to facilitate the selective locking of the mold parts together. Moreover, it would have been obvious to a skilled artisan to have utilized a conventional toothed rack to translate the sliding bolt lock as disclosed in Sorensen '299, since such were equivalent means for reciprocating the sliding bolt lock.

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sorensen '747 in view of any one of Sorensen '171, Sorensen '341 and Sorensen '299, and further in view of Bielfeldt et al., as applied to claims 1, 2, 4 and 6-10 above, and further in view of Lee et al. (U.S. Patent 6,089,852).

Sorensen '171 does not disclose the lock as comprising a rotatable threaded rod. Lee et al. discloses an injection molding machine comprising a molding tool having at least three tool parts separable along parallel separation planes, wherein a rotatable threaded rod is utilized to selectively open and close the tool along the separation planes. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sorensen '171 by utilizing a rotatable threaded rod to selectively open and close the tool along the separation planes, as disclosed in Lee et al., since such were equivalent means for opening and closing the tool parts.

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sorensen '747 in view of any one of Sorensen '171, Sorensen '341 and Sorensen '299, and further in view of Bielfeldt et al., as applied to claims 1, 2, 4 and 6-10 above, and further in view of Japanese Patent Document 56-86730 (Figures 1-5).

Sorensen '171 does not disclose the lock as comprising an inclined bolt. Japan '730 discloses an injection molding machine comprising a molding tool having at least three tool parts separable along parallel separation planes, wherein an inclined bolt 20 is utilized to selectively lock the respective tool parts together along the separation planes. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sorensen '171 by utilizing an inclined bolt for selectively locking the tool parts together along the separation planes, as disclosed in Japan '730, since such were equivalent means for locking the tool parts together.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Mackey whose telephone number is 571-272-1135. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

James Mackey
Primary Examiner
Art Unit 1722
6/9/06

jpm
June 9, 2006